TASC

Technical Assistance and Services Center

Flex Program Hour Highlights

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Topic: Telecommunications and State Initiatives with Rural Hospitals/CAHs

Moderator: Terry Hill, TASC

Guests: Mary Ring, Illinois Department of Public Health, mring@idph.state.il.us

Wayne Hellerstedt, Helen Newberry Joy Hospital (CAH), Newberry, MI, whellerstedt@hnjh.org

Mike Whaley, University of Nevada, School of Medicine, <u>whaley@med.unr.edu</u> Alison Hughes, University of Arizona, Rural Health Office, <u>ahughes@u.arizona.edu</u>

Mary Ring, Illinois – We are trying to connect all our CAHs both with one another and with everybody else. Setting up a telecommunications system based on Internet protocol. We are lucky to have a statewide telecommunications network created with state funding provided initially to the community colleges. The state created an organizational unit called the IL Century Network that now manages the network among all community colleges, universities, elementary and secondary schools and public libraries. The network is very robust with lots of backbone and capability. There are "points of presence" located in 16 LATA in the state and there is a connection point within each LATA.

The focus has been on bringing on hospitals, initially the CAHs, and not-for-profit healthcare providers will be next. Being state funded is a thorn in the side of telecommunications companies in the state, but they have never developed high-speed capabilities in rural areas. We are giving a grant to the hospitals and asking them to purchase a package of equipment (a "shopping list" is provided) for basic infrastructure that some of them didn't have or that would significantly enhance what they had. This is more from an infrastructure/IT aspect. We will be adding telemedicine services down the road. The initial funding has been to support enhanced wiring, purchase PCs and all necessary network and video conferencing equipment.

We provide technical assistance via a networking specialist from the private sector and he's provided tremendous support to the hospitals. We are doing in-house wiring, firewalls, doing all of the installation, and getting T-1 connections to the nearest point of presence. We are giving out grant dollars to purchase videoconferencing equipment and fostering communication and comfort level of using video.

We have 17 CAHs, and have 7 connected now and on-line. The others are in various stages and should be ready by spring. Some CAHs have already been talking about adding telemedicine. We've had many contacts from educational institutions and tertiary care folks wanting to develop services. Over the next year, this will mushroom into a wide variety of services available in the state.

This is all state money and not Flex dollars; we are just targeting CAHs first. The approximate size of grants are \$44,000-\$46,000 per facility for equipment and connections.

<u>Wayne Hellerstedt, Michigan</u> – Our network has been working together for over 10 years, formally as UP Healthcare Network for 6 or 7 years. There are 14 hospitals in this network and there are three aspects:

- 1. Inter-connectability of our information systems, communication, e-mail. We also have reference lab facilities in connection with Marquette. We do our own order entry and we get our lab results back via the information system network.
- 2. Teleconferencing is provided via a bridge in Marquette. In 1991-2 we had grant dollars to connect 6-7 hospitals and now they are all connected. We hold weekly physician CMEs, use it for monthly board meetings, for educational programs with paramedics and first responders, and for network committee meetings.
- 3. Telemedicine system. Six CAHs in the UP are inter-connected with Marquette General. It's used for customized follow-ups for cardiology, dermatology, and OB first nurse visits. We will be expanding in January. There are no endocrinologists in the UP, so we're setting up a monthly clinic with a Traverse City clinic. We are also in discussions with the Dept. of Corrections to establish a pilot project with our local prison.

The funding has been provided internally and we've also written mini-grants thru the Flex Program, and the Office of Technology grants. It's one of the most exciting things we do; it saves travel dollars, time spent traveling, and saves debilitated people from traveling. The telemedicine project has really expanded patients' access to health care.

Mike Whaley, Nevada – The compressed video and Internet system was begun in 1992 through the AHEC system in full cooperation with main campus. It was the first statewide system ever developed in the U.S. The first grant application for telecommunications was submitted under UNR administration. This project almost failed until the School of Medicine was asked to take it over. This was a Rural Electrification Administration Grant for about \$ 750,000 dollars including match. The project provided funding for a compressed video site in Elko, in addition to the development of sites in Reno, Las Vegas and Hawthorne.

The UNSOM worked with various community partners to expand the system, which now houses 22 units in 14 communities. In addition, the School of Medicine is currently working with a large Congressional appropriation that will connect another 3-6 communities on the dark side of the digital divide. This project links the clinical facilities with schools and libraries within these isolated communities.

The University of Nevada School of Medicine has taken the land grant mission of the University extremely seriously. When the outreach program of the School of Medicine began, we offered 2-3 educational programs per year in each community. With the advent and advances in telecommunications, the School of Medicine saw an opportunity to not only serve the larger communities it had traditionally served, but also serve the smaller communities it had been unable to in the past because of travel and budgetary limitations.

A second grant in 1994, funded equipment purchases and was a joint project between the Nevada Rural Hospital Project and the School of Medicine. This project funded another 5 additional compressed video sites, and created the ability for off-campus education programs to be offered by the School of Medicine and the rest of the University of Nevada, Reno. The School of Medicine continued to fund telecommunications equipment through grants and other funding. The School of Medicine has never requested direct financial aid to assist these sites from UNR, and continues to, financially and technologically, support the rural and urban sites. The School of Medicine has never requested fees for use of these rooms from UNR or any other system institution.

The School of Medicine's sites have been utilized, from the beginning, by all institutions of the University for classes both medical and academic. The University of Nevada, Reno as well as Great Basin College, Western Nevada Community College, University of Nevada, Las Vegas, Truckee Meadows Community College, and the Community College of Southern Nevada have all accessed the School of Medicine facilities to offer classes.

Alison Hughes, Arizona – Our telecommunications system has been operating for five years. The university center is the hub site from which we provide specialty and sub-specialty consults. In addition, we allow private providers to buy into the network. Other major hospitals pay membership fees to do their own individualized telemedicine consults. That means we have multiple networks within the network. We encourage this because it empowers local providers, and alleviates concerns that our own physicians want all the referrals.

We have partnered with the state corrections department to provide "correctional telemedicine" to prisoners. All prisoners in Arizona must receive healthcare via telemedicine. This has saved money and prisoners love it. The prison system contracts with providers who are members of our network for services. For example, St. Mary's hospital in Tucson, which joined our network, does the radiology reads under contract with the prison system, using our network. We also initiated national correctional telemedicine conferences, which take place in Tucson annually with people coming from throughout the country. Also, the Indian Health Service is in the process of negotiating to participate in our network. And the U.S. Army contracted with us to make telemedicine services available in panama, and we are already receiving cases from physicians in that country. Also, the Navajo nation is in the process of building a telecommunications network, using our network backbone.

Additionally, we use our telecommunications network for continuing education, CME programs on regularly scheduled visits, and the biggest has been on the recent bio-terrorism broadcast from CDC. We provide regularly scheduled real-time clinics such as cardiology, and psychiatry.

One challenge in utilization of telemedicine technology may be found within the HMO reimbursement system in which physicians have to meet patient quotas (e.g., seeing patients in 15 minute intervals). Telemedicine is a different approach to patient care, and some think it is not cost efficient as the time involved cuts into the 15-minute patient quota. Thus some physicians and administrators show resistance to using the new technology. This is a common challenge across the country. Provider buy-in is critical to the success of telemedicine applications.

Discussion

What are the frustrations/road blocks/issues coming about telecommunications in the states?

- Physician buy-in
- Training of personnel and protocol
- Constant challenge of funding to sustain systems (paying monthly fee)
- How to get a basic infrastructure when a state doesn't have a medical school or major medical center to fund the initial investment to offer to outlying areas.
 - Illinois gets general revenue funding from the state. They made a special request to the Governor, who is interested in technology development in the state. They asked for \$500K and it became one of his budget initiatives.
 - Nevada's approach is to look wherever they can tobacco money, small community start-up grants, phone companies, educational institutions, and they lobby state people.
 - Kentucky has two overlapping systems (one hospital-based and one university-based). They patched together funding through the state Primary Care Association, some private finding, etc. There is no one way to do this, each state has its own barriers.